Small Fab

Tumble

Work Orde		472		*984	72*						Page 1
Item ID: Revision ID: Item Name:	D2282-041 T Assembly		,	Accept	*N900	<b>040</b>	100	<b>n*</b> s	etup Star	1/1	S1* S2*
Start Date: Required Date:	3/11/13	Start Qty: 4.00 Req'd Qty: 4.00	*4* *4*		Cust Item I Customer:	<b>D:</b>					. 12
Reference: Approvals:	Process Pla	an: MLJ	Date: <u>13-03-13</u>	Tooling:	Da	nte:	_	R	tun Star	171	R1*
	QC:		Date:	<b>SPC (Y/N):</b>	Da	ıte:		•	Stop	° *N	R2*
Sequence ID/ Work Center II	D	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Rev	vision Nbr									
D2282	Rev	/ E									
100 <b>*1</b> Carge Fab		Large Fab Memo		0.00				×29		3 <i>-03</i>	-21 m
Large Fab		1-Weld as Grind ch	per D2282-041 'T' Handle As amfers and ensure full penetr ush weld right after welding L SS Filling Rod	ation.as per dwg D2282 to take color off ******							
110		QC9- Inspect visual per	r QSI004- Fusion Welds	0.00					•	`	040
*110*		Мето		0.00				(29)	13.03	P-91	045 09
Quality Control									•		
120				0.00				_	,		<b>0</b> 4
*120* Small Fab		Small Fab		. 0.00				29	The	133	30/

											DQA:	Date	e:
NCR:	Yes	/ No				WORK ORDER NON-	CONI	FORM	MANCE / UP	DATE	QA Closed:	Date	e:
Work Ord	ler:					DISPOSITION		AGAINST DEPARTMENT/PROCESS					
Part No.  NCR No.						Rework Skid-tube Crosstube Scrap Machining Small Fab Use-as-is Thermoforming Finishing Work Order Update Large Fab Composite		<del> </del>	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other			
Root						ption of work order update	1	itial	Ac	tion	Sign &		
Cause		Date	Step	Qty	(	or Non-conformance	Chie	ef Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved							The second secon						
						F	AULT	CATE	GORY				
Land	ing G	ear				General		,				_	
Çr.	П	Bending Centre No	ot Concer	ntric to	o/s	Bend BOM/Route	$\vdash$	arain Iardwa	re		Ovalized Over/Under	tolerance	Pressure/Forced Temperature/Cure
80		Cracks				Broken/Damaged	Ir	nspecti	on Incomplete		Part Incorre	ct	Weld
**************************************	П	Crushed/	Crimped			Burrs	Ir	nstruct	ions Incomplete/	Unclear	Part Lost/Mi	issing	Wrong Stock Pulled
ļ	П	Cuffs				Contamination	$\square$	∕lainte	nance		Part Moved		<b>-</b>
	$\vdash$	Heat Trea	ıt			Countersink	<del></del>	/lislabe		<u> </u>	Positioned V	Vrong	
	-	Inspection		Tube		Cut Too Short	$\vdash$	/lisread		<u> </u>	Power Loss/		Other
	-	Ripples in				Drill Holes	$\boldsymbol{\vdash}$	Offset		<b>L</b> _	<b>-</b>		•
	П	Torque W		xtrusio	n	Drawing	$\mathbf{H}$		Calibration				
l <del>[ ]</del>			Finish	$\vdash$	Out of Sequence								

Outside Dimensions

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Wave/Twist in Tube

Folio

Work Ord March-12-13 1		472		*984	172*					Page 2
Item ID: Revision ID:	D2282-041			Accept	*N900040	1100	)*	Setup St	14.7	1*
Item Name:	T Assembly							51	top *NS	2*
Start Date:	3/11/13	Start Qty: 4.00	*4*		Cust Item ID:					
Required Date:	: 3/22/13	Req'd Qty: 4.00	*4*		Customer: ,					
Reference:								D S4	tart **IC	
Approvals:	Process Pla	an:	Date:	Tooling:	Date:		ı		"INH	21*
••	QC:		Date:	SPC (Y/N):	Date:			S	top *NF	22*
Sequence ID/ Work Center I	D	Operation Description		Set Up/ Run Hours	Tool ID Tool #	Plan Code	Accept Qty	Reject Qty		nsp. Stamp
130		QC5- Inspect part compl	eteness to step on W/O	0.00	$\cap$		$\circ$			
*130* QC Quality Control		Memo		0.00 B3	)/ )S		count			
140		Identify as per dwg & St	ock Location $\triangle A$	0.00			00			
*140* Packaging Packaging		Memo		0.00			17		<u>.</u> 9	<del>/)</del>
150		QC21- Final Inspection	- Work Order Release	0.00					<b>-</b> 13 - 57	25
*150* QC Quality Control		Memo		0.00	•			<u>M</u> C.	MUS 13	,-03-2

											DQA:	Da	te: _		
NCR: Y	'es	/ No				WORK ORDER NON-	100	1FORN	MANCE / UP	DATE	QA Closed:	Da	te:		
Nork Orde	r.					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS			
Part No.  NCR No.			Rework Scrap Use-as-is Work Order Update		Therm	Skid-tube  Machining  noforming  Large Fab	Crosstube Small Fab Finishing Composite	4	Water Jet d. Eng. Coor. re/Packaging Supplier	_	Engineering Quality Other				
Root Cause		Date	Step	Qty		ption of work order update	1	nitial ief Eng	Acti Descr	ion iption	Sign & Date	Verificatio	n	QC Inspector	
oc/Data quip/Tooling perator laterial etup other rocess upplier raining															
						F	AUL	T CATE	GORY						
Landir	Bending Centre Not Concentric to O/S Cracks Crushed/Crimped Cuffs Heat Treat Inspection Strip in Tube Ripples in Bend Torque Waves in Extrusion Turning Sequence			General Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes Drawing Finish	Grain Hardware Inspection Incomplete Instructions Incomplete/Unclear Maintenance Mislabeled Misread Offset Out of Calibration Out of Sequence			Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V Power Loss/	ct ssing Vrong		Pressure/Forced Femperature/Cure Weld Wrong Stock Pulled Other				
		Wave/Tw	ist in Tub	e .		Folio		Outside	Dimensions						

March-12-13 1:56:44 PM

Work Order ID:

98472

Parent Item:

D2282-041

Parent Item Name: T Assembly

**Start Date: 3/11/13** 

Required Date: 3/22/13

13-03-12 MAL.

Start Qty: 4.00

Required Qty: 4.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2282-3	1,217	Manufactured	No			100	Each	40.0000	1	4			
Tube				I4!		I an Ota	1.0	a Cada	· · · · · · ·				
				Location		Loc Qty	<u>Lo</u>	c Code					
				WA001					7		, 2	~ <del></del>	7 (
				9382		× 29	21		<u> </u>	<u> </u>	/>_	U5-0	21-MA
				WA002		11			<del></del>				
				7496	9	11							
<b>D2282-5</b> Tube		Manufactured	No			100	Each	108.0000	1	4			
Tuoc				Location		Loc Oty	<u>Lo</u>	c Code					
				WA001		11							
				7496	52	11							

37 60

										DQA:	Date:	
NCR: Y€	es / No	)			WORK ORDER NON-C		NFOR	MANCE / UP		QA Closed:	Date:	-
Work Order	ŕ:				DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Part No	Rework Skid-tube Crosstube Water Je  t No. Scrap Machining Small Fab Prod. Eng. Coor  Use-as-is Thermoforming Finishing Rec/Store/Packaging			Engineering Quality Other								
Root				Descri	ption of work order update	1	nitial	Ac	tion	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Ch	ief Eng	Desc	cription	Date	Verification	QC Inspector
Doc/Data												
Equip/Tooling												
Operator												
Material												
Setup												
Other												
Process			İ									,

**FAULT CATEGORY** 

Grain

Hardware

Maintenance

Out of Calibration

Out of Sequence

Outside Dimensions

Mislabeled

Misread

Offset

Inspection Incomplete

Instructions Incomplete/Unclear

Ovalized

Part Incorrect

Part Moved

Part Lost/Missing

Positioned Wrong

Power Loss/Surge

Over/Under tolerance

Pressure/Forced

Weld

Other

Temperature/Cure

Wrong Stock Pulled

General

Bend

Burrs

BOM/Route

Contamination

Countersink

Cut Too Short

Drill Holes

Drawing

Finish

Folio

Broken/Damaged

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Supplier Training Unapproved

**Landing Gear** 

Bending

Cracks

Cuffs

Heat Treat

Crushed/Crimped

Inspection Strip in Tube

Torque Waves in Extrusion

Centre Not Concentric to O/S



DESIGN	٧.	DRAWN BY	DART AEROSPACE LTD
1	BW	#2	HAWKESBURY, ONTARIO, CANADA
CHECK	ED O	APPROVED	DRAWING NO. REV. E
	a	1/40	D2282 SHEET 1 OF 2
DATE			TITLE SCALE
05.0	6.07		HANDLE TUBES 1:1
Α		94.10.14	NEW ISSUE
В		95.03.23	RE-DESIGN
С		97.10.20	CORRECTED NUMBERING SCHEME
D		05.03.16	REDESIGN D2282-5; 0.795 WAS 0.750
F		05.06.07	D2282-5 304 SS WAS 303 SS;

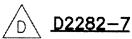
 $R0.063 \times 0.063 WAS R0.080 \times 0.030$ 

Ø0.675 (REF)

		***
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AND ADDRESS AND AD		一大 大
2.375_0.000	0.795	
0.020		Ø0.493 \(\)
D2282_3	\( \chi_\) D2282_7	(REF)

Ε

D2282-3

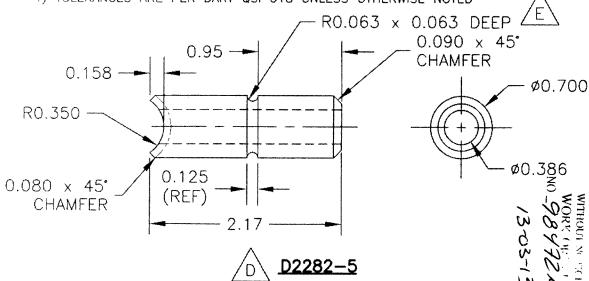


05.06.07

D2282-3/-7 TUBE:

- 1) MATERIAL: T304/T316 3/8 SCHEDULE 40 (REF. DART SPEC. M304TR0.675W.091)
- 2) BREAK ALL UMARKED SHARP EDGES 0.005 TO 0.010
- 3) ALL DIMENSIONS ARE IN INCHES

4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED



D2282-5 STEM:

- 1) MATERIAL: AISI 304 STAINLESS STEEL (REF. DART SPEC. M304R0.750)
- 2) BREAK ALL UMARKED SHARP EDGES 0.005 TO 0.010
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

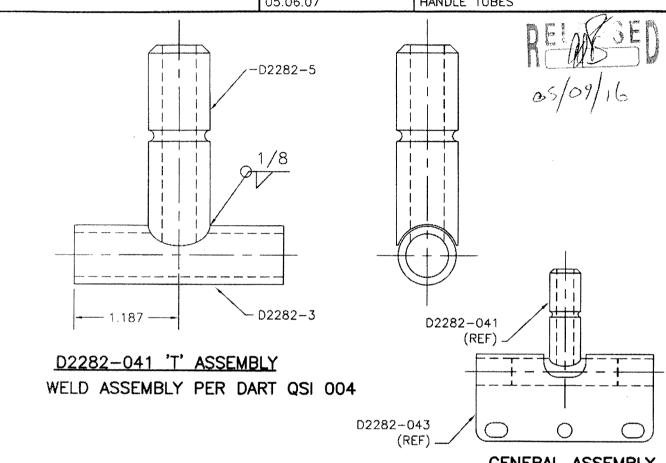
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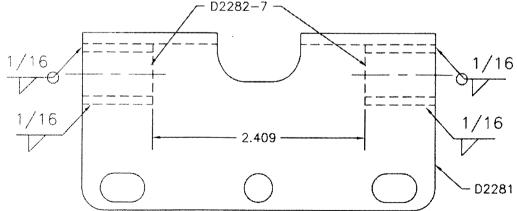
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DESIGN BW	DRAWN BY	DART AEROS HAWKESBURY, ONT	
CHECKED	APPROVED	DRAWING NO.	REV. E
l u'	11116	D2282	SHEET 2 OF 2
DATE		TITLE	SCALE
05.06.07		HANDLE TUBES	1:1



## GENERAL ASSEMBLY SCALE 1:2



D2282-043 SADDLE ASSEMBLY WELD ASSEMBLY PER DART QSI 004

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